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SESSION RESUMED IN FILE 'STNGUIDE' AT 14:48:55 ON 06 AUG 2009  
FILE 'STNGUIDE' ENTERED AT 14:48:55 ON 06 AUG 2009  
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COST IN U.S. DOLLARS

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	1.54	239.71

=> file reg

	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	1.54	239.71

FILE 'REGISTRY' ENTERED AT 14:49:06 ON 06 AUG 2009  
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STRUCTURE FILE UPDATES: 5 AUG 2009 HIGHEST RN 1173150-47-4  
DICTIONARY FILE UPDATES: 5 AUG 2009 HIGHEST RN 1173150-47-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

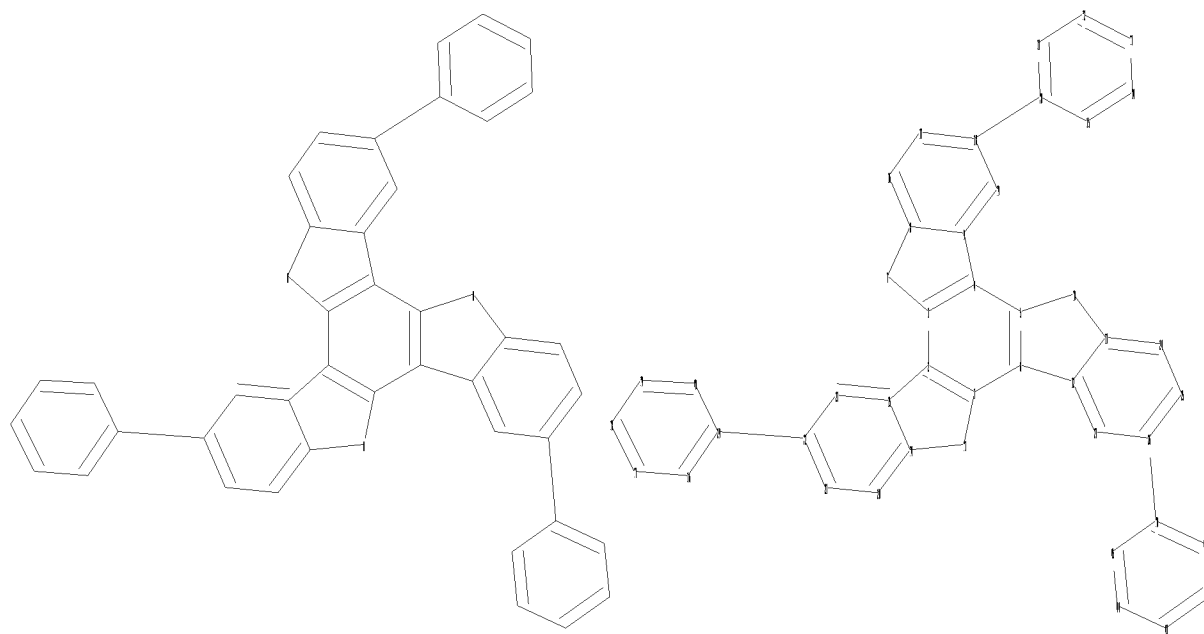
Please note that search-term pricing does apply when  
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REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\STNEXP\Queries\10589534a.str



```

ring nodes :
1  2  3  4  5  6  7  8  9  10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44
45
chain bonds :
18-28  22-29  26-30
ring bonds :
1-2  1-6  1-13  2-3  2-15  3-4  3-7  4-5  4-9  5-6  5-10  6-12  7-8  8-9  8-16
9-19  10-11 11-12 11-24 12-27 13-14 14-15 14-20 15-23 16-17 17-18 18-19
20-21 21-22 22-23 24-25 25-26 26-27 28-31 28-35 29-36 29-40 30-41 30-45
31-32 32-33 33-34 34-35 36-37 37-38 38-39 39-40 41-42 42-43 43-44 44-45
exact/norm bonds :
1-13  2-15  3-7  4-9  5-10  6-12  7-8  10-11  13-14
exact bonds :
18-28  22-29  26-30
normalized bonds :
1-2  1-6  2-3  3-4  4-5  5-6  8-9  8-16  9-19  11-12  11-24  12-27  14-15  14-20
15-23  16-17  17-18  18-19  20-21  21-22  22-23  24-25  25-26  26-27  28-31  28-35
29-36  29-40  30-41  30-45  31-32  32-33  33-34  34-35  36-37  37-38  38-39  39-40
41-42  42-43  43-44  44-45
isolated ring systems :
containing 1 : 28 : 29 : 30 :

```

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom  
29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom  
38:Atom 39:Atom 40:Atom 41:Atom 42:Atom 43:Atom 44:Atom 45:Atom

L4           STRUCTURE UPLOADED

=> s l4 sss full  
FULL SEARCH INITIATED 14:49:28 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED -       980 TO ITERATE

100.0% PROCESSED           980 ITERATIONS                   12 ANSWERS  
SEARCH TIME: 00.00.01

L5           12 SEA SSS FUL L4

=> file capl		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	185.88	425.59

FILE 'CAPLUS' ENTERED AT 14:49:31 ON 06 AUG 2009  
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FILE COVERS 1907 - 6 Aug 2009 VOL 151 ISS 6  
FILE LAST UPDATED: 4 Aug 2009 (20090804/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

CAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAplus family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 22.

=> s 15

L6 6 L5

=> d 16 1-6 ibib hitstr

L6 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2009:180289 CAPLUS

DOCUMENT NUMBER: 150:385339

TITLE: Synthesis and properties of disk-shaped bipolar symmetric cyclic triindole derivative

AUTHOR(S): Hiyoshi, Hidetaka; Aoyama, Tetsuya; Wada, Tatsuo; Sonoda, Takaaki; Mataka, Shuntaro

CORPORATE SOURCE: Planning Section, Development Department, Ihara Chemical Industry Co., Ltd., 4-26 Ikenohata 1-chome, Taito-ku, Tokyo, 110-0008, Japan

SOURCE: Heterocycles (2009), 77(1), 595-602

CODEN: HTCYAM; ISSN: 0385-5414

PUBLISHER: Japan Institute of Heterocyclic Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

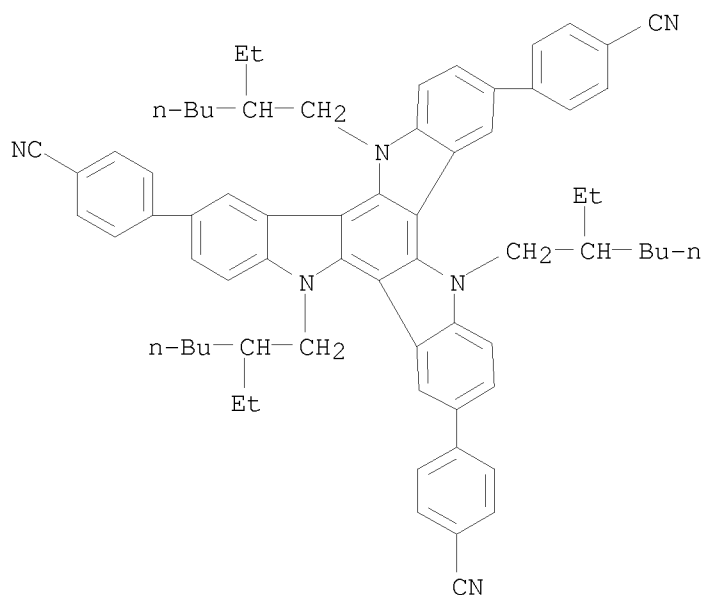
IT 943862-60-0

RL: PRP (Properties)

(synthesis and properties of disk-shaped bipolar sym. cyclic triindole derivative)

RN 943862-60-0 CAPLUS

CN Benzonitrile, 4,4',4''-[5,10,15-tris(2-ethylhexyl)-10,15-dihydro-5H-diindolo[3,2-a:3',2'-c]carbazole-3,8,13-triyl]tris- (CA INDEX NAME)



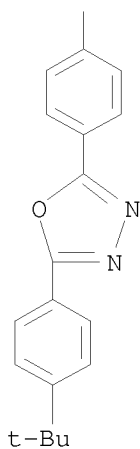
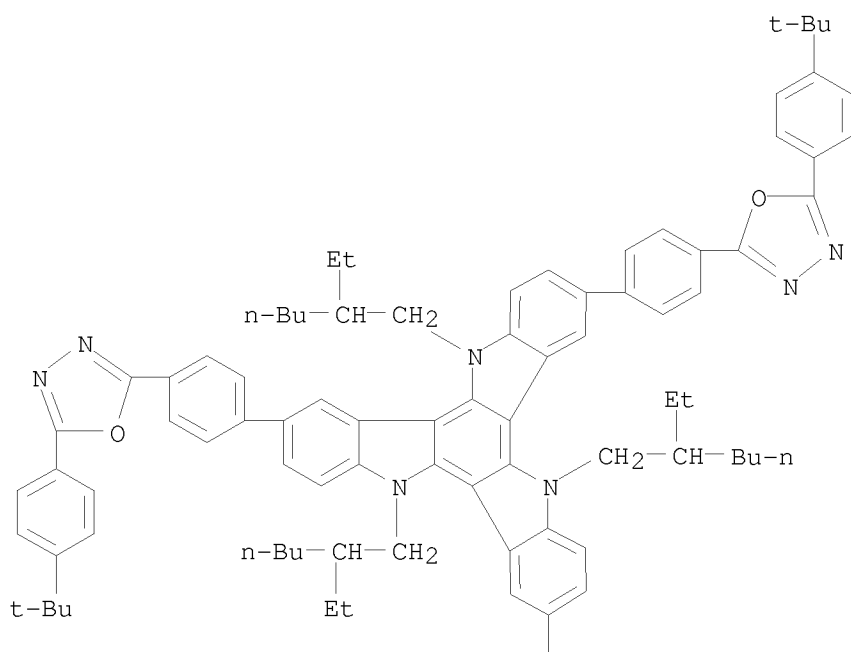
IT 923060-32-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and properties of disk-shaped bipolar sym. cyclic triindole derivative)

RN 923060-32-6 CAPLUS

CN 5H-Diindolo[3,2-a:3',2'-c]carbazole, 3,8,13-tris[4-[5-[4-(1,1-dimethylethyl)phenyl]-1,3,4-oxadiazol-2-yl]phenyl]-5,10,15-tris(2-ethylhexyl)-10,15-dihydro- (CA INDEX NAME)

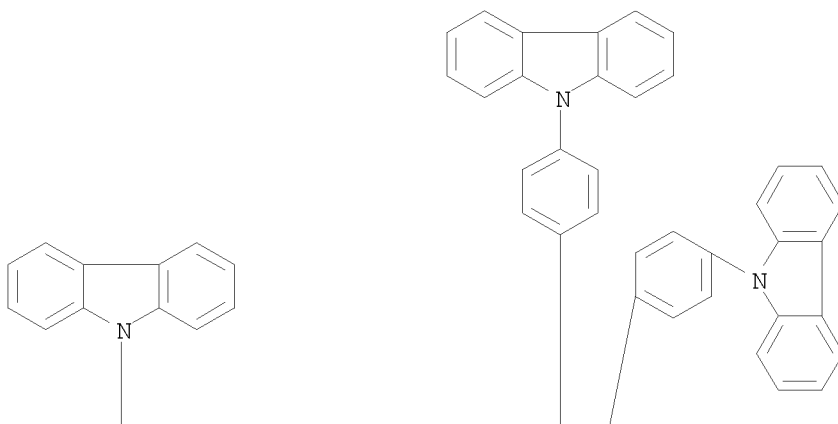


REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

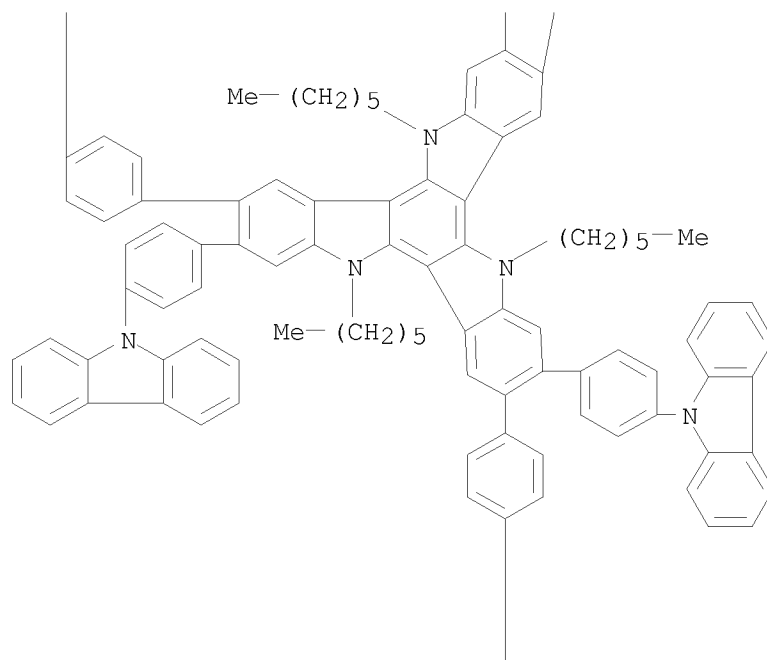
L6 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2008:1143433 CAPLUS  
 DOCUMENT NUMBER: 149:534017  
 TITLE: Synthesis and characterization of starburst  
 9-phenylcarbazole/triazatruxene hybrids  
 AUTHOR(S): Lai, Wen-Yong; He, Qi-Yuan; Chen, Dao-Yong; Huang, Wei  
 CORPORATE SOURCE: Institute of Advanced Materials, Fudan University,  
 Shanghai, 200433, Peop. Rep. China  
 SOURCE: Chemistry Letters (2008), 37(9), 986-987  
 CODEN: CMLTAG; ISSN: 0366-7022

PUBLISHER: Chemical Society of Japan  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 149:534017  
 IT 1078162-83-0P 1078162-84-1P  
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of phenylcarbazole-triazatruxene hybrids via cross-coupling of  
 hexabromotriazatruxene with phenylcarbazole boron esters as key step,  
 and their UV-vis spectra and cyclic voltammetry property)  
 RN 1078162-83-0 CAPLUS  
 CN 5H-Diindolo[3,2-a:3',2'-c]carbazole,  
 2,3,7,8,12,13-hexakis[4-(9H-carbazol-9-yl)phenyl]-5,10,15-trihexyl-10,15-  
 dihydro- (CA INDEX NAME)

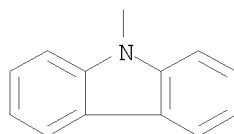
PAGE 1-A



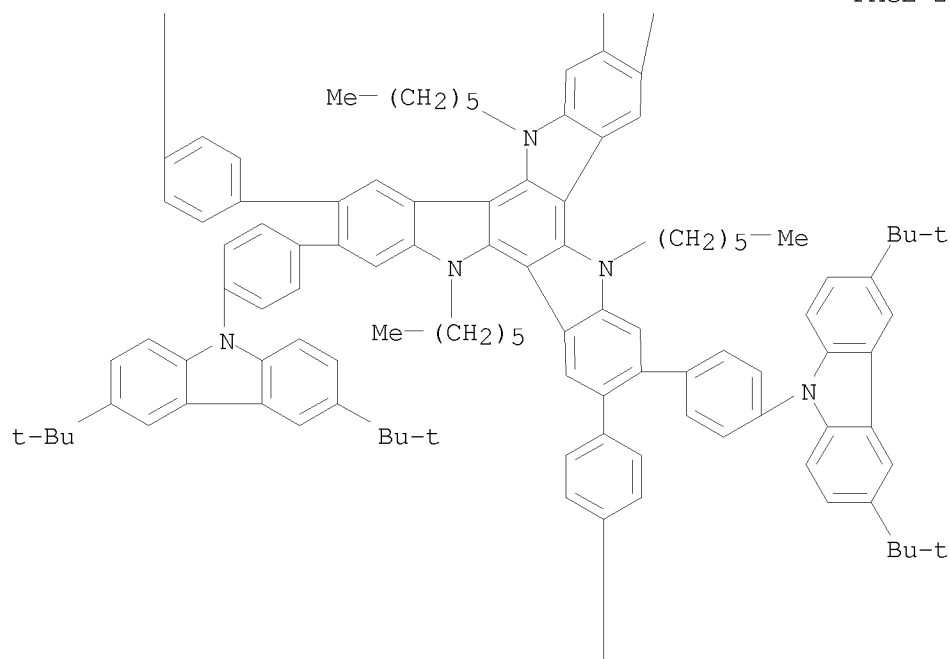
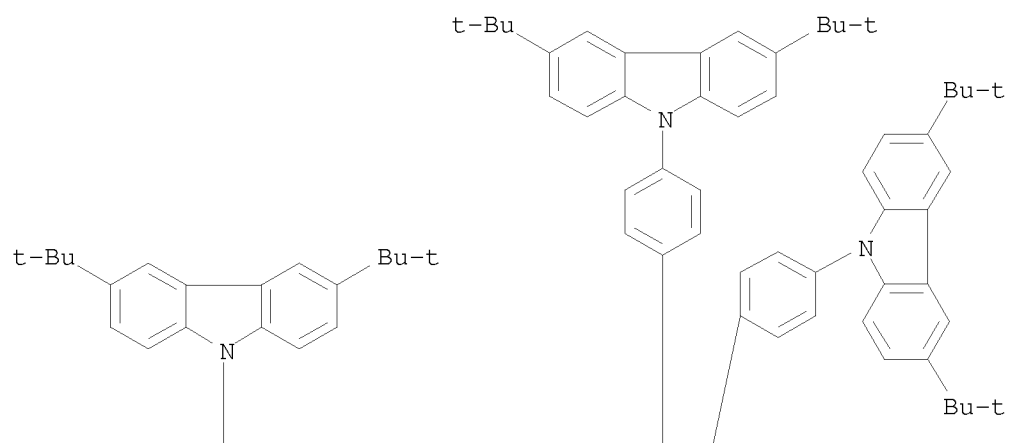
PAGE 2-A



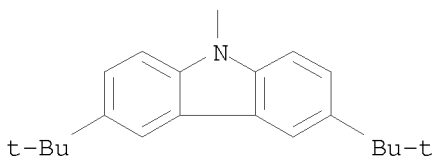
PAGE 3-A



RN 1078162-84-1 CAPLUS  
 CN 5H-Diindolo[3,2-a:3',2'-c]carbazole,  
 2,3,7,8,12,13-hexakis[4-[3,6-bis(1,1-dimethylethyl)-9H-carbazol-9-  
 yl]phenyl]-5,10,15-trihexyl-10,15-dihydro- (CA INDEX NAME)







OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)  
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:554057 CAPLUS

DOCUMENT NUMBER: 147:166216

TITLE: Donor- $\pi$ -acceptor type symmetric cyclic triindoles:  
synthesis and properties

AUTHOR(S): Hiyoshi, Hidetaka; Kumagai, Hironobu; Ooi, Hideo;  
Sonoda, Takaaki; Mataka, Shuntaro

CORPORATE SOURCE: Advanced Materials Department, Ihara Chemical Industry  
Co. Ltd., 2256 Nakanogo, Fujikawa, Ihara, Shizuoka,  
412-3306, Japan

SOURCE: Heterocycles (2007), 72, 231-238

CODEN: HTCYAM; ISSN: 0385-5414

PUBLISHER: Japan Institute of Heterocyclic Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:166216

IT 943862-57-5P 943862-58-6P 943862-60-0P

RL: PEP (Physical, engineering or chemical process); PRP (Properties); SPN  
(Synthetic preparation); PREP (Preparation); PROC (Process)

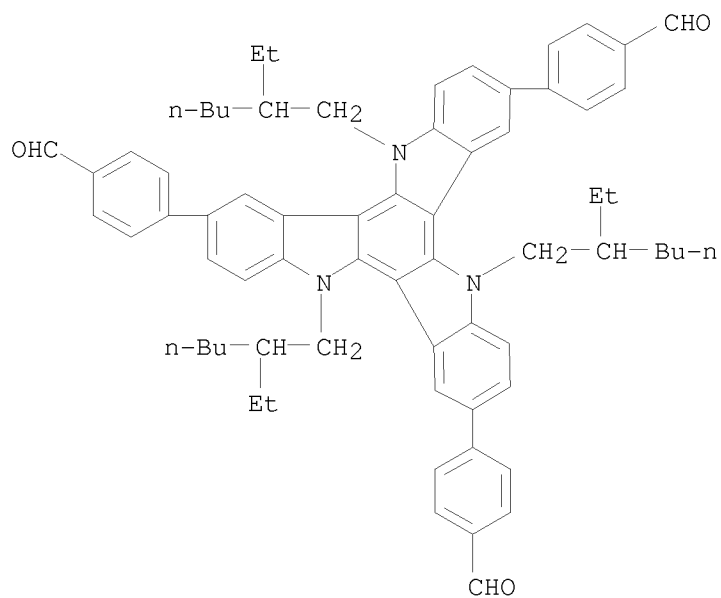
(preparation, oxidation potential, UV fluorescence, and photoluminescence

due

to intramol. charge transfer)

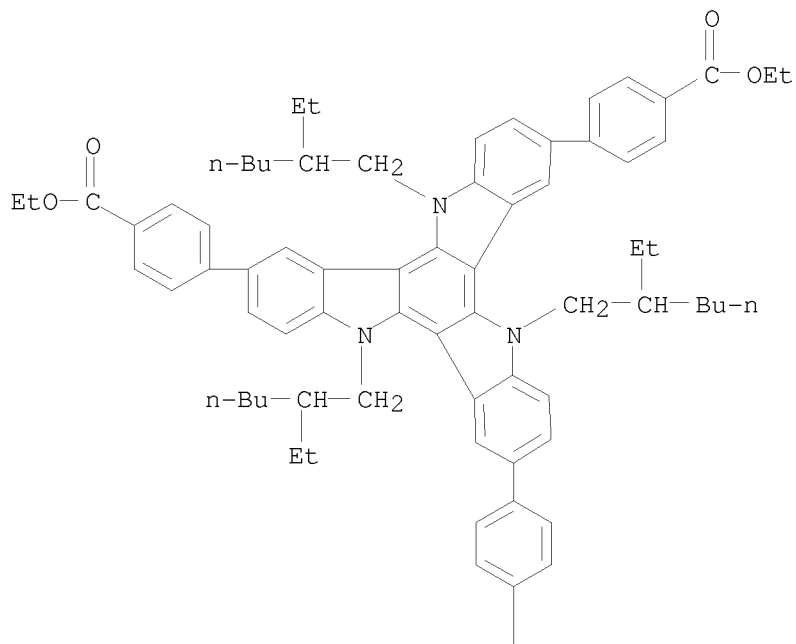
RN 943862-57-5 CAPLUS

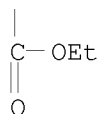
CN Benzaldehyde, 4,4',4''-[5,10,15-tris(2-ethylhexyl)-10,15-dihydro-5H-  
diindolo[3,2-a:3',2'-c]carbazole-3,8,13-triyl]tris- (CA INDEX NAME)



RN 943862-58-6 CAPLUS  
 CN Benzoic acid, 4,4',4''-[5,10,15-tris(2-ethylhexyl)-10,15-dihydro-5H-diindolo[3,2-a:3',2'-c]carbazole-3,8,13-triyl]tris-, 1,1',1''-triethyl ester (CA INDEX NAME)

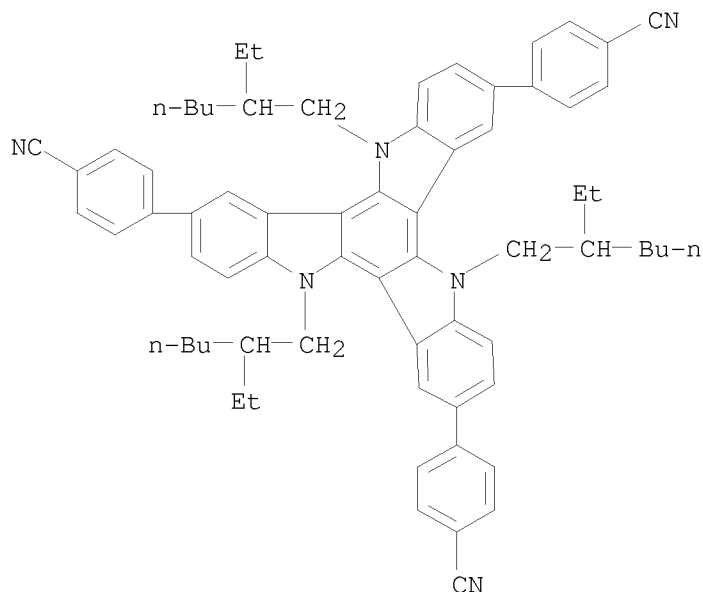
PAGE 1-A





RN 943862-60-0 CAPLUS

CN Benzonitrile, 4,4',4'''-[5,10,15-tris(2-ethylhexyl)-10,15-dihydro-5H-diindolo[3,2-a:3',2'-c]carbazole-3,8,13-triyl]tris- (CA INDEX NAME)



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:143971 CAPLUS

DOCUMENT NUMBER: 146:206315

TITLE: Preparation of oxadiazole-substituted Sym-triindole derivatives as organic electroluminescent devices

INVENTOR(S): Hiyoshi, Hidetaka; Wada, Tatsuo; Aoyama, Tetsuya

PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 64pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007015414	A1	20070208	WO 2006-JP314861	20060727
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN,				

MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU,  
 SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,  
 US, UZ, VC, VN, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.:

JP 2005-223152

A 20050801

OTHER SOURCE(S):

MARPAT 146:206315

IT 923060-32-6P

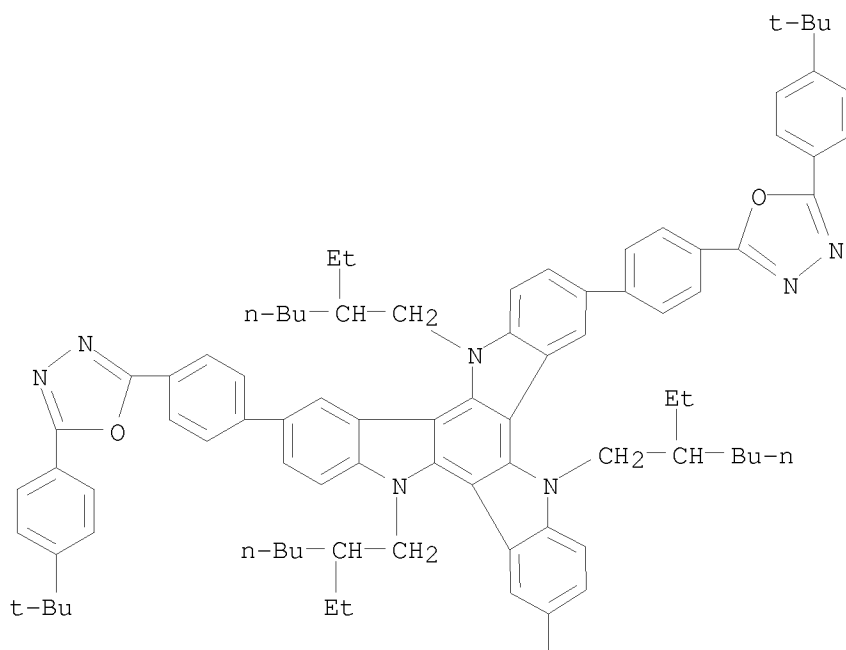
RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)

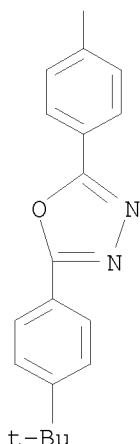
(preparation of oxadiazole-substituted Sym-triindole derivs. as organic  
 electroluminescent devices)

RN 923060-32-6 CAPLUS

CN 5H-Diindolo[3,2-a:3',2'-c]carbazole,  
 3,8,13-tris[4-[5-[4-(1,1-dimethylethyl)phenyl]-1,3,4-oxadiazol-2-  
 yl]phenyl]-5,10,15-tris(2-ethylhexyl)-10,15-dihydro- (CA INDEX NAME)

PAGE 1-A





L6 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:902899 CAPLUS

DOCUMENT NUMBER: 143:229827

TITLE: Preparation of substituted sym-triindole derivatives by cyclocondensation reaction of substituted oxindole derivatives using phosphorus oxychloride

INVENTOR(S): Hiyoshi, Hidetaka; Kumagai, Hironobu; Ooi, Hideo

PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005077956	A1	20050825	WO 2005-JP2140	20050214
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1717239	A1	20061102	EP 2005-719087	20050214
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
CN 1934114	A	20070321	CN 2005-80008807	20050214
IN 2006CN02981	A	20070608	IN 2006-CN2981	20060814
US 20070191455	A1	20070816	US 2006-589534	20060815
KR 2006128009	A	20061213	KR 2006-718942	20060915
PRIORITY APPLN. INFO.:			JP 2004-38874	A 20040216
			WO 2005-JP2140	W 20050214

OTHER SOURCE(S): MARPAT 143:229827

IT 862856-09-5P

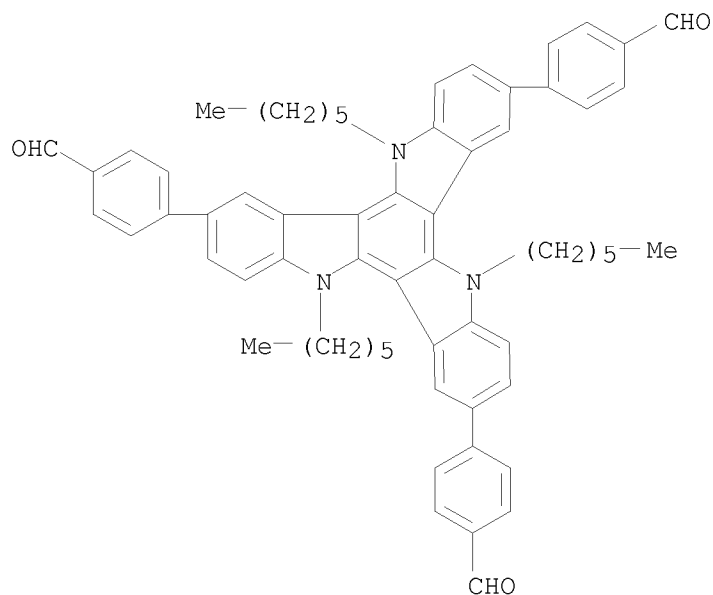
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or

engineered material use); PREP (Preparation); RACT (Reactant or reagent);  
USES (Uses)

(preparation of substituted sym-triindole derivs. as antistatic agents,  
chemical sensors, phototransistors, etc., by cyclocondensation reaction of  
substituted oxindole derivs. using phosphorus oxychloride)

RN 862856-09-5 CAPLUS

CN Benzaldehyde, 4,4',4''-(5,10,15-trihexyl-10,15-dihydro-5H-diindolo[3,2-  
a:3',2'-c]carbazole-3,8,13-triyl)- (9CI) (CA INDEX NAME)



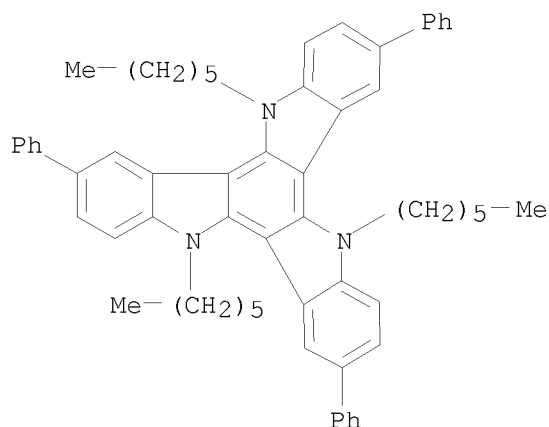
IT 862856-08-4P 862856-10-8P 862856-11-9P  
862856-12-0P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material  
use); PREP (Preparation); USES (Uses)

(preparation of substituted sym-triindole derivs. as antistatic agents,  
chemical sensors, phototransistors, etc., by cyclocondensation reaction of  
substituted oxindole derivs. using phosphorus oxychloride)

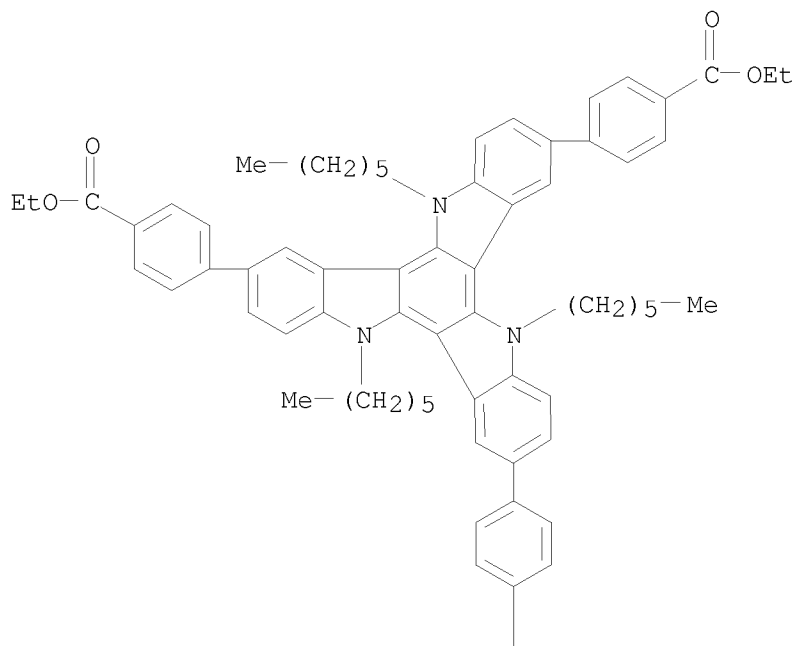
RN 862856-08-4 CAPLUS

CN 5H-Diindolo[3,2-a:3',2'-c]carbazole,  
5,10,15-trihexyl-10,15-dihydro-3,8,13-triphenyl- (9CI) (CA INDEX NAME)

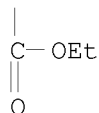


RN 862856-10-8 CAPLUS  
 CN Benzoic acid, 4,4',4''-(5,10,15-trihexyl-10,15-dihydro-5H-diindolo[3,2-a:3',2'-c]carbazole-3,8,13-triyl)-, triethyl ester (9CI) (CA INDEX NAME)

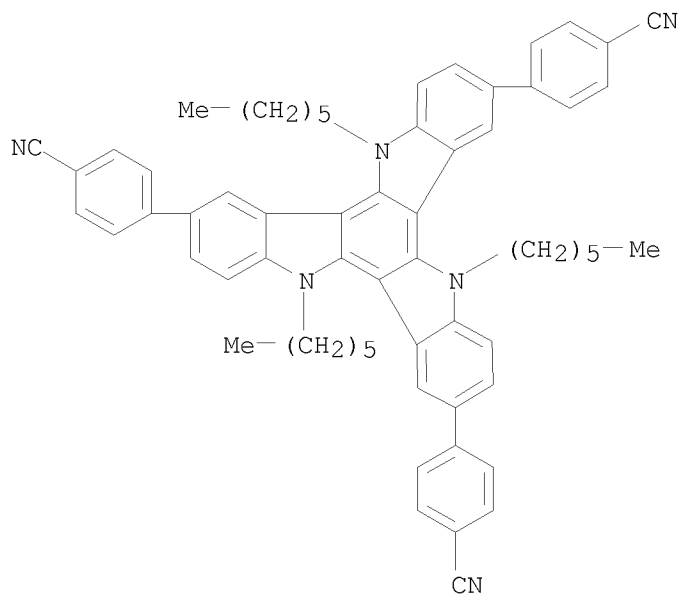
PAGE 1-A



PAGE 2-A

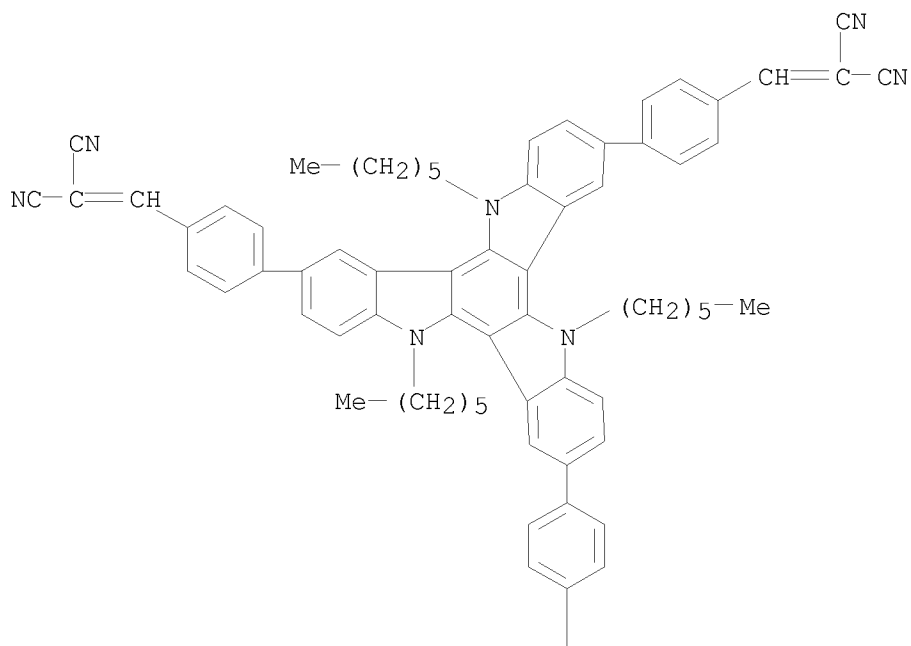


RN 862856-11-9 CAPLUS  
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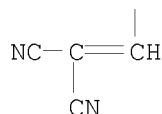


RN 862856-12-0 CAPLUS  
 CN Propanedinitrile, 2,2',2''-[(5,10,15-trihexyl-10,15-dihydro-5H-diindolo[3,2-a:3',2'-c]carbazole-3,8,13-triyl)tris(4,1-phenylenemethylidene)]tris- (9CI) (CA INDEX NAME)

PAGE 1-A







OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

L6 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:592508 CAPLUS

DOCUMENT NUMBER: 141:277443

TITLE: Synthesis of a Triaza Analogue of Crushed-Fullerene by Intramolecular Palladium-Catalyzed Arylation

AUTHOR(S): Gomez-Lor, Berta; Echavarren, Antonio M.

CORPORATE SOURCE: Instituto de Ciencia de Materiales de Madrid, CSIC, Departamento de Quimica Organica, Universidad Autonoma de Madrid (UAM), Madrid, 28049, Spain

SOURCE: Organic Letters (2004), 6(17), 2993-2996

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 141:277443

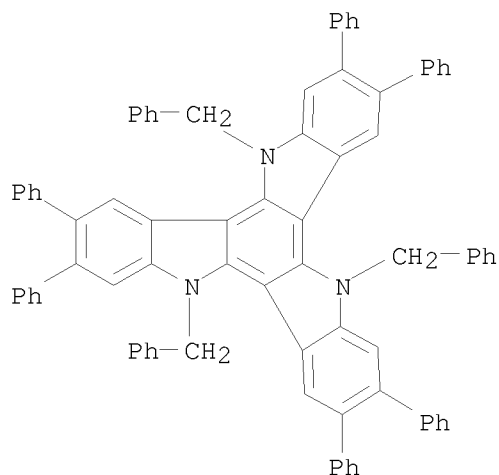
IT 757233-27-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(synthesis of a triaza analog of crushed-fullerene by intramol.  
palladium-catalyzed arylation)

RN 757233-27-5 CAPLUS

CN 5H-Diindolo[3,2-a:3',2'-c]carbazole,  
10,15-dihydro-2,3,7,8,12,13-hexaphenyl-5,10,15-tris(phenylmethyl)- (9CI)  
(CA INDEX NAME)



OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS  
RECORD (20 CITINGS)

REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file reg

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	26.84	452.43

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 DICTIONARY FILE UPDATES: 5 AUG 2009 HIGHEST RN 1173150-47-4

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 on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> file casreact

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.48	452.91

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FILE CONTENT:1840 - 2 Aug 2009 VOL 151 ISS 6

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```
*****
*
*      CASREACT now has more than 16.5 million reactions      *
*
*****
```

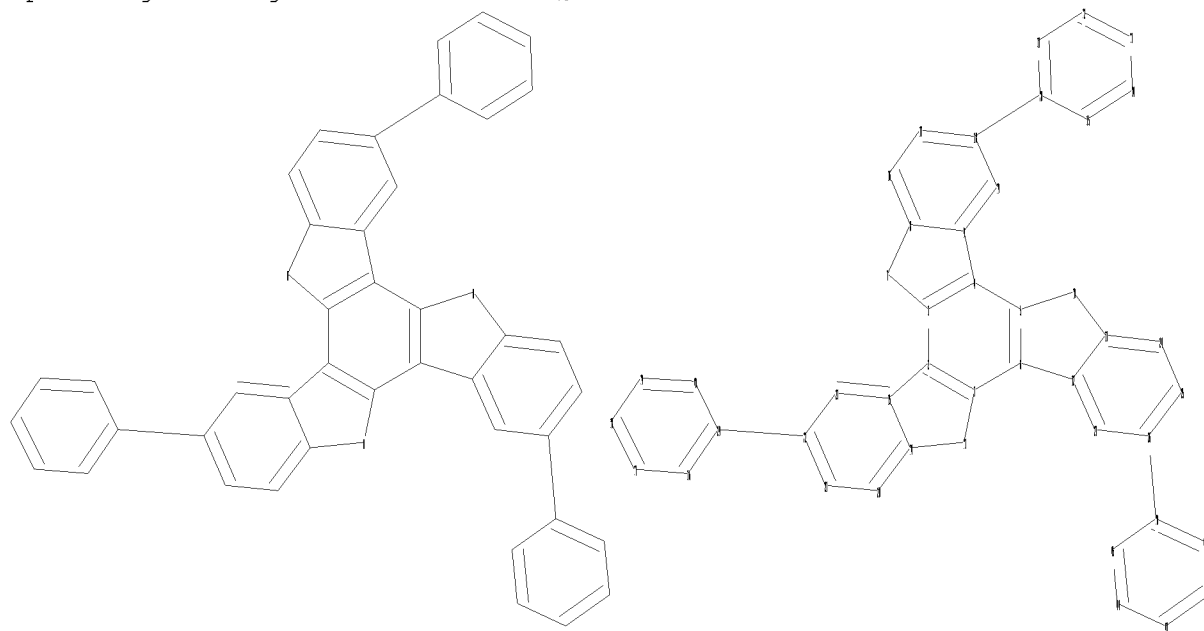
CASREACT contains reactions from CAS and from: ZIC/VINITI database  
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 Biotransformations database compiled under the direction of  
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=>

Uploading C:\Program Files\STNEXP\Queries\654321.str



ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23  
24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44  
45

chain bonds :

18-28 22-29 26-30

ring bonds :

1-2 1-6 1-13 2-3 2-15 3-4 3-7 4-5 4-9 5-6 5-10 6-12 7-8 8-9 8-16  
9-19 10-11 11-12 11-24 12-27 13-14 14-15 14-20 15-23 16-17 17-18 18-19  
20-21 21-22 22-23 24-25 25-26 26-27 28-31 28-35 29-36 29-40 30-41 30-45  
31-32 32-33 33-34 34-35 36-37 37-38 38-39 39-40 41-42 42-43 43-44 44-45

exact/norm bonds :

1-13 2-15 3-7 4-9 5-10 6-12 7-8 10-11 13-14

exact bonds :

18-28 22-29 26-30

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-16 9-19 11-12 11-24 12-27 14-15 14-20  
15-23 16-17 17-18 18-19 20-21 21-22 22-23 24-25 25-26 26-27 28-31 28-35  
29-36 29-40 30-41 30-45 31-32 32-33 33-34 34-35 36-37 37-38 38-39 39-40  
41-42 42-43 43-44 44-45

isolated ring systems :

containing 1 : 28 : 29 : 30 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom  
29:Atom 30:Atom 31:Atom 32:Atom 33:Atom 34:Atom 35:Atom 36:Atom 37:Atom  
38:Atom 39:Atom 40:Atom 41:Atom 42:Atom 43:Atom 44:Atom 45:Atom

fragments assigned product role:  
containing 1

L7 STRUCTURE UPLOADED

=> s l7 sss full

FULL SEARCH INITIATED 14:54:17 FILE 'CASREACT'

SCREENING COMPLETE - 1325 REACTIONS TO VERIFY FROM 129 DOCUMENTS

100.0% DONE 1325 VERIFIED 15 HIT RXNS 3 DOCS  
SEARCH TIME: 00.00.02

L8 3 SEA SSS FUL L7 ( 15 REACTIONS)

=> file capl

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

123.13

576.04

FILE 'CAPLUS' ENTERED AT 14:54:25 ON 06 AUG 2009

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FILE COVERS 1907 - 6 Aug 2009 VOL 151 ISS 6

FILE LAST UPDATED: 4 Aug 2009 (20090804/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

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The ALL, BIB, MAX, and STD display formats in the CA/Caplus family

of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 22.

=> s 18

L9 3 L8

=> d 19 1-3 ibib

L9 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:1143433 CAPLUS

DOCUMENT NUMBER: 149:534017

TITLE: Synthesis and characterization of starburst  
9-phenylcarbazole/triazatruxene hybrids

AUTHOR(S): Lai, Wen-Yong; He, Qi-Yuan; Chen, Dao-Yong; Huang, Wei

CORPORATE SOURCE: Institute of Advanced Materials, Fudan University,  
Shanghai, 200433, Peop. Rep. China

SOURCE: Chemistry Letters (2008), 37(9), 986-987

CODEN: CMLTAG; ISSN: 0366-7022

PUBLISHER: Chemical Society of Japan

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 149:534017

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:554057 CAPLUS

DOCUMENT NUMBER: 147:166216

TITLE: Donor- $\pi$ -acceptor type symmetric cyclic triindoles:  
synthesis and properties

AUTHOR(S): Hiyoshi, Hidetaka; Kumagai, Hironobu; Ooi, Hideo;

Sonoda, Takaaki; Mataka, Shuntaro

CORPORATE SOURCE: Advanced Materials Department, Ihara Chemical Industry  
Co. Ltd., 2256 Nakanogo, Fujikawa, Ihara, Shizuoka,  
412-3306, Japan

SOURCE: Heterocycles (2007), 72, 231-238

CODEN: HTCYAM; ISSN: 0385-5414

PUBLISHER: Japan Institute of Heterocyclic Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 147:166216

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:592508 CAPLUS

DOCUMENT NUMBER: 141:277443

TITLE: Synthesis of a Triaza Analogue of Crushed-Fullerene by  
Intramolecular Palladium-Catalyzed Arylation

AUTHOR(S): Gomez-Lor, Berta; Echavarren, Antonio M.

CORPORATE SOURCE: Instituto de Ciencia de Materiales de Madrid, CSIC,  
Departamento de Quimica Organica, Universidad Autonoma  
de Madrid (UAM), Madrid, 28049, Spain

SOURCE: Organic Letters (2004), 6(17), 2993-2996

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 141:277443  
OS.CITING REF COUNT: 20 THERE ARE 20 CAPLUS RECORDS THAT CITE THIS  
RECORD (20 CITINGS)  
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file reg		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	4.25	580.29

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DICTIONARY FILE UPDATES:    5 AUG 2009   HIGHEST RN 1173150-47-4
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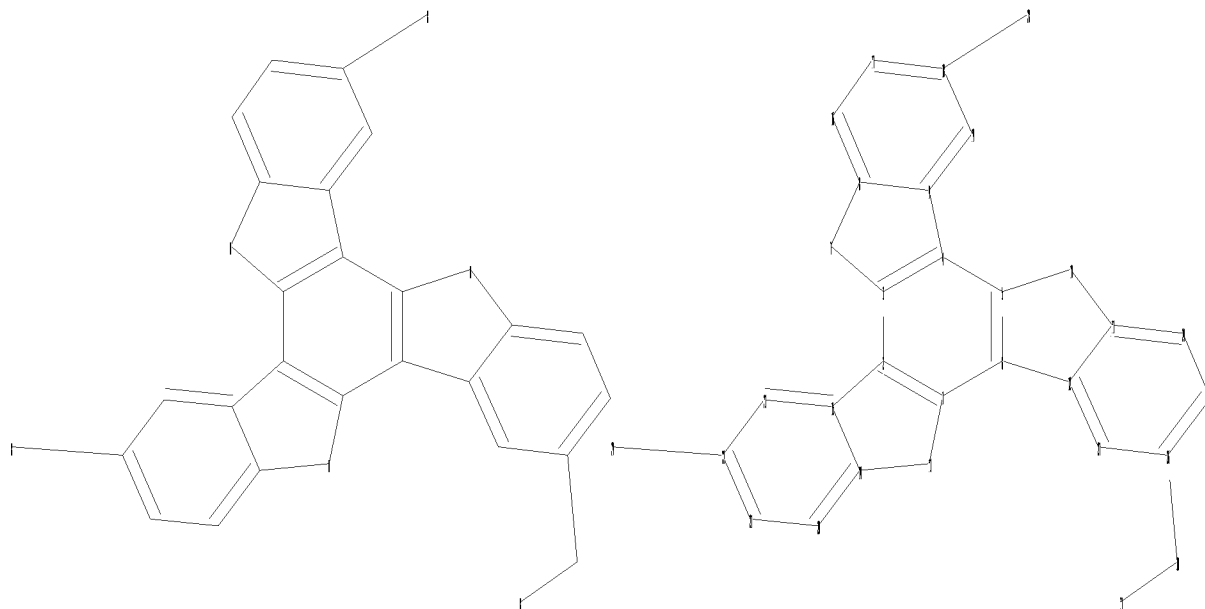
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```
=>
Uploading C:\Program Files\STNEXP\Queries\94651.str
```



```

chain nodes :
28 29 30 31
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27
chain bonds :
18-28 22-29 26-30 30-31
ring bonds :
1-2 1-6 1-13 2-3 2-15 3-4 3-7 4-5 4-9 5-6 5-10 6-12 7-8 8-9 8-16
9-19 10-11 11-12 11-24 12-27 13-14 14-15 14-20 15-23 16-17 17-18 18-19
20-21 21-22 22-23 24-25 25-26 26-27
exact/norm bonds :
1-13 2-15 3-7 4-9 5-10 6-12 7-8 10-11 13-14
exact bonds :
18-28 22-29 26-30 30-31
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-16 9-19 11-12 11-24 12-27 14-15 14-20
15-23 16-17 17-18 18-19 20-21 21-22 22-23 24-25 25-26 26-27
isolated ring systems :
containing 1 : 28 : 29 : 30 :

```

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom
29:Atom 30:Atom 31:Atom

```

L10 STRUCTURE UPLOADED

=> file casreact

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

1.44

581.73

FILE 'CASREACT' ENTERED AT 14:56:19 ON 06 AUG 2009

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FILE CONTENT:1840 - 2 Aug 2009 VOL 151 ISS 6

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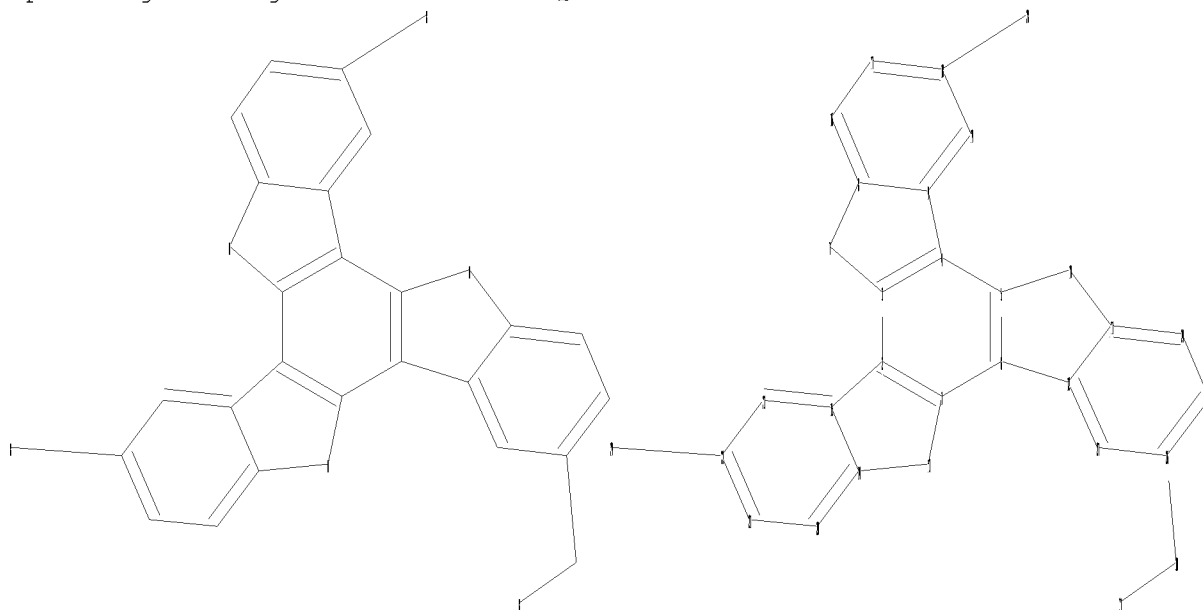
```
*****
*
*      CASREACT now has more than 16.5 million reactions      *
*
*****
```

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=>

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```

chain nodes :
28 29 30 31
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27
chain bonds :
18-28 22-29 26-30 30-31
ring bonds :
1-2 1-6 1-13 2-3 2-15 3-4 3-7 4-5 4-9 5-6 5-10 6-12 7-8 8-9 8-16
9-19 10-11 11-12 11-24 12-27 13-14 14-15 14-20 15-23 16-17 17-18 18-19
20-21 21-22 22-23 24-25 25-26 26-27
exact/norm bonds :
1-13 2-15 3-7 4-9 5-10 6-12 7-8 10-11 13-14
exact bonds :
18-28 22-29 26-30 30-31
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-16 9-19 11-12 11-24 12-27 14-15 14-20
15-23 16-17 17-18 18-19 20-21 21-22 22-23 24-25 25-26 26-27
isolated ring systems :
containing 1 : 28 : 29 : 30 :

```

```

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom
29:Atom 30:Atom 31:Atom

```

L11 STRUCTURE UPLOADED

```

=> s l11 sss full
FULL SEARCH INITIATED 14:56:35 FILE 'CASREACT'
SCREENING COMPLETE - 366 REACTIONS TO VERIFY FROM 41 DOCUMENTS

100.0% DONE 366 VERIFIED 0 HIT RXNS 0 DOCS
SEARCH TIME: 00.00.01

```

L12 0 SEA SSS FUL L11 ( 0 REACTIONS)

```

=> file reg
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 123.13 704.86

```

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STRUCTURE FILE UPDATES: 5 AUG 2009 HIGHEST RN 1173150-47-4  
DICTIONARY FILE UPDATES: 5 AUG 2009 HIGHEST RN 1173150-47-4

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

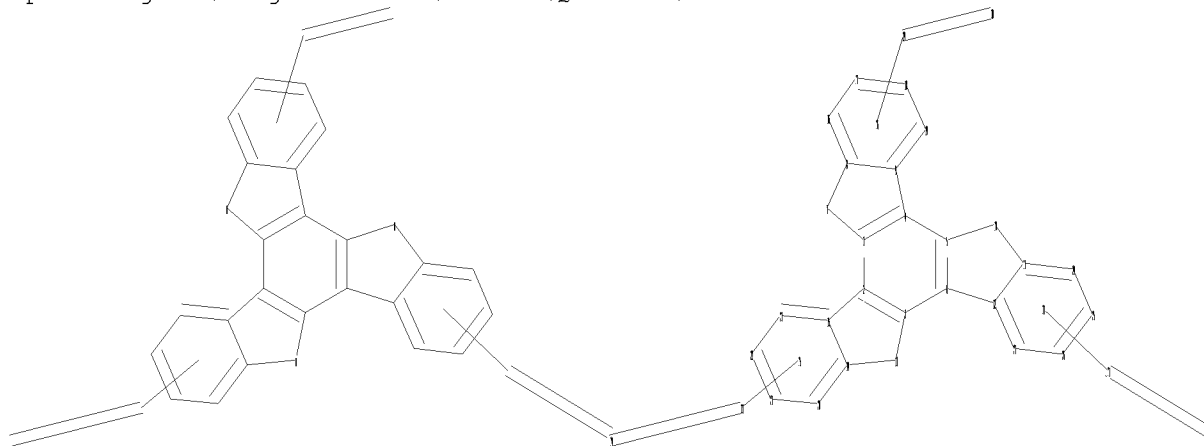
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=>

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```
chain nodes :
29 30 31 32 33 34
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27
chain bonds :
29-30 31-32 33-34
ring bonds :
1-2 1-6 1-13 2-3 2-15 3-4 3-7 4-5 4-9 5-6 5-10 6-12 7-8 8-9 8-16
9-19 10-11 11-12 11-24 12-27 13-14 14-15 14-20 15-23 16-17 17-18 18-19
20-21 21-22 22-23 24-25 25-26 26-27
exact/norm bonds :
1-13 2-15 3-7 4-9 5-10 6-12 7-8 10-11 13-14
exact bonds :
29-30 31-32 33-34
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-16 9-19 11-12 11-24 12-27 14-15 14-20
15-23 16-17 17-18 18-19 20-21 21-22 22-23 24-25 25-26 26-27
isolated ring systems :
containing 1 :
```

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 29:CLASS  
30:CLASS 31:CLASS 32:CLASS 33:CLASS 34:CLASS 35:Atom 36:Atom 37:Atom

L13 STRUCTURE UPLOADED

=> s l13 sss full

FULL SEARCH INITIATED 14:58:58 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 65 TO ITERATE

100.0% PROCESSED 65 ITERATIONS

9 ANSWERS

SEARCH TIME: 00.00.01

L14 9 SEA SSS FUL L13

=> file capl

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

187.32

892.18

FILE 'CAPLUS' ENTERED AT 14:59:01 ON 06 AUG 2009

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FILE COVERS 1907 - 6 Aug 2009 VOL 151 ISS 6

FILE LAST UPDATED: 4 Aug 2009 (20090804/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

CAPLUS now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

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=> s 114  
L15 3 L14

=> d 115 1-3 ibib

L15 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2008:697472 CAPLUS  
DOCUMENT NUMBER: 149:210454  
TITLE: Precise determination of the first hyperpolarizability  
of a fluorescent triindole derivative with  
dicyanovinyl groups by the deconvolution method  
AUTHOR(S): Ikeda, Shigeru; Kumagai, Hironobu; Ooi, Hideo;  
Konishi, Koji; Hiyoshi, Hidetaka; Wada, Tatsuo  
CORPORATE SOURCE: Supramolecular Science Laboratory, RIKEN (The  
Institute of Physical and Chemical Research), Wako,  
Saitama, 351-0198, Japan  
SOURCE: Chemical Physics Letters (2008), 458(4-6), 337-340  
CODEN: CHPLBC; ISSN: 0009-2614  
PUBLISHER: Elsevier B.V.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2007:974830 CAPLUS  
DOCUMENT NUMBER: 147:287873  
TITLE: Nonlinear optical material  
INVENTOR(S): Hiyoshi, Hidetaka; Oi, Hideo; Kumagaya, Hironobu;  
Wada, Tatsuo; Ikeda, Shigeru  
PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2007219024	A	20070830	JP 2006-37261	20060214
PRIORITY APPLN. INFO.:			JP 2006-37261	20060214
OTHER SOURCE(S):		MARPAT 147:287873		

L15 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2005:902899 CAPLUS  
DOCUMENT NUMBER: 143:229827  
TITLE: Preparation of substituted sym-triindole derivatives  
by cyclocondensation reaction of substituted oxindole  
derivatives using phosphorus oxychloride  
INVENTOR(S): Hiyoshi, Hidetaka; Kumagai, Hironobu; Ooi, Hideo  
PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan  
SOURCE: PCT Int. Appl., 66 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005077956 A1 20050825 WO 2005-JP2140 20050214  
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,  
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,  
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,  
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,  
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,  
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,  
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RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG  
EP 1717239 A1 20061102 EP 2005-719087 20050214  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS  
CN 1934114 A 20070321 CN 2005-80008807 20050214  
IN 2006CN02981 A 20070608 IN 2006-CN2981 20060814  
US 20070191455 A1 20070816 US 2006-589534 20060815  
KR 2006128009 A 20061213 KR 2006-718942 20060915  
PRIORITY APPLN. INFO.: JP 2004-38874 A 20040216  
WO 2005-JP2140 W 20050214  
OTHER SOURCE(S): MARPAT 143:229827  
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

=> file reg  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 4.25 896.43

FILE 'REGISTRY' ENTERED AT 14:59:12 ON 06 AUG 2009  
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STRUCTURE FILE UPDATES: 5 AUG 2009 HIGHEST RN 1173150-47-4  
DICTIONARY FILE UPDATES: 5 AUG 2009 HIGHEST RN 1173150-47-4

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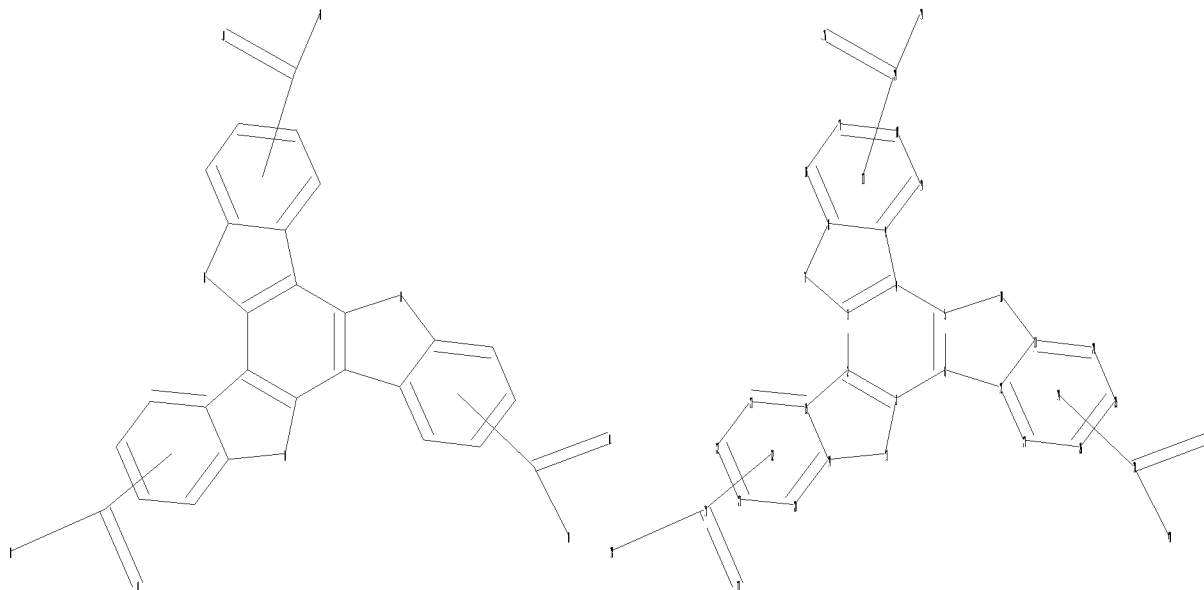
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>  
Uploading C:\Program Files\STNEXP\Queries\46854.str



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29 30 31 35 36 37 38 39 40
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27
chain bonds :
29-36 29-39 30-35 30-40 31-37 31-38
ring bonds :
1-2 1-6 1-13 2-3 2-15 3-4 3-7 4-5 4-9 5-6 5-10 6-12 7-8 8-9 8-16
9-19 10-11 11-12 11-24 12-27 13-14 14-15 14-20 15-23 16-17 17-18 18-19
20-21 21-22 22-23 24-25 25-26 26-27
exact/norm bonds :
1-13 2-15 3-7 4-9 5-10 6-12 7-8 10-11 13-14 29-36 30-35 31-37
exact bonds :
29-39 30-40 31-38
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-16 9-19 11-12 11-24 12-27 14-15 14-20
15-23 16-17 17-18 18-19 20-21 21-22 22-23 24-25 25-26 26-27
isolated ring systems :
containing 1 :

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 29:CLASS
30:CLASS 31:CLASS 32:Atom 33:Atom 34:Atom 35:CLASS 36:CLASS 37:CLASS
38:CLASS 39:CLASS 40:CLASS

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L16        STRUCTURE UPLOADED

=> s l16 sss full  
FULL SEARCH INITIATED 15:00:35 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED -        1146 TO ITERATE

100.0% PROCESSED        1146 ITERATIONS                    2 ANSWERS  
SEARCH TIME: 00.00.01

L17                2 SEA SSS FUL L16

=> file capl  
COST IN U.S. DOLLARS                    SINCE FILE        TOTAL  
    ENTRY        SESSION  
FULL ESTIMATED COST                    186.36        1082.79

FILE 'CAPLUS' ENTERED AT 15:00:37 ON 06 AUG 2009  
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FILE COVERS 1907 - 6 Aug 2009    VOL 151 ISS 6  
FILE LAST UPDATED: 4 Aug 2009    (20090804/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

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<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/CAPLUS family of databases have been updated to include new citing references information. This enhancement may impact record import into database management software. For additional information, refer to NEWS 22.

=> s l17  
L18                1 L17

=> d l18 ibib

L18    ANSWER 1 OF 1    CAPLUS    COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:902899 CAPLUS  
 DOCUMENT NUMBER: 143:229827  
 TITLE: Preparation of substituted sym-triindole derivatives  
 by cyclocondensation reaction of substituted oxindole  
 derivatives using phosphorus oxychloride  
 INVENTOR(S): Hiyoshi, Hidetaka; Kumagai, Hironobu; Ooi, Hideo  
 PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 66 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005077956	A1	20050825	WO 2005-JP2140	20050214
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1717239	A1	20061102	EP 2005-719087	20050214
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1934114	A	20070321	CN 2005-80008807	20050214
IN 2006CN02981	A	20070608	IN 2006-CN2981	20060814
US 20070191455	A1	20070816	US 2006-589534	20060815
KR 2006128009	A	20061213	KR 2006-718942	20060915
PRIORITY APPLN. INFO.:			JP 2004-38874	A 20040216
			WO 2005-JP2140	W 20050214
OTHER SOURCE(S):			MARPAT 143:229827	
OS.CITING REF COUNT:			1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)	

=> file reg  
 COST IN U.S. DOLLARS                      SINCE FILE              TOTAL  
    ENTRY              SESSION  
 FULL ESTIMATED COST                      1.75              1084.54

FILE 'REGISTRY' ENTERED AT 15:00:43 ON 06 AUG 2009  
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STRUCTURE FILE UPDATES: 5 AUG 2009 HIGHEST RN 1173150-47-4  
 DICTIONARY FILE UPDATES: 5 AUG 2009 HIGHEST RN 1173150-47-4

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.



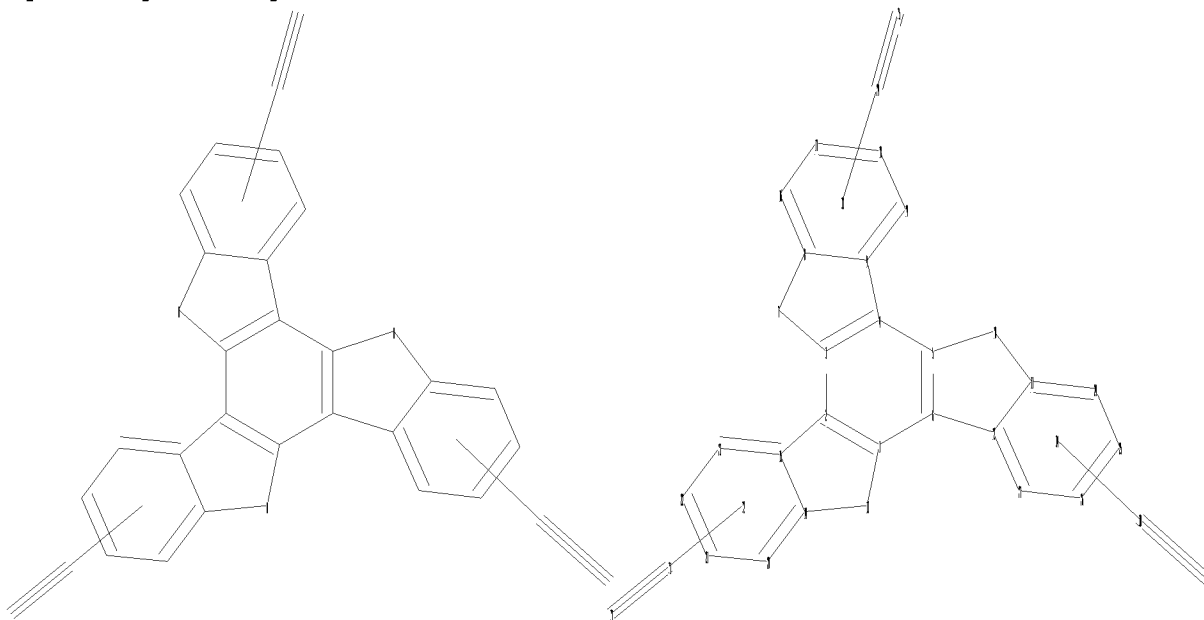
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=>

Uploading C:\Program Files\STNEXP\Queries\6874.str



```
chain nodes :
29 30 31 35 36 37
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
24 25 26 27
chain bonds :
29-35 30-36 31-37
ring bonds :
1-2 1-6 1-13 2-3 2-15 3-4 3-7 4-5 4-9 5-6 5-10 6-12 7-8 8-9 8-16
9-19 10-11 11-12 11-24 12-27 13-14 14-15 14-20 15-23 16-17 17-18 18-19
20-21 21-22 22-23 24-25 25-26 26-27
exact/norm bonds :
1-13 2-15 3-7 4-9 5-10 6-12 7-8 10-11 13-14
exact bonds :
29-35 30-36 31-37
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-9 8-16 9-19 11-12 11-24 12-27 14-15 14-20
15-23 16-17 17-18 18-19 20-21 21-22 22-23 24-25 25-26 26-27
isolated ring systems :
```

containing 1 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 29:CLASS  
30:CLASS 31:CLASS 32:Atom 33:Atom 34:Atom 35:CLASS 36:CLASS 37:CLASS

L19 STRUCTURE UPLOADED

=> s l19 sss full

FULL SEARCH INITIATED 15:01:37 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 213 TO ITERATE

100.0% PROCESSED 213 ITERATIONS

12 ANSWERS

SEARCH TIME: 00.00.01

L20 12 SEA SSS FUL L19

=> file capl

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

186.36

1270.90

FILE 'CAPLUS' ENTERED AT 15:01:39 ON 06 AUG 2009

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FILE COVERS 1907 - 6 Aug 2009 VOL 151 ISS 6

FILE LAST UPDATED: 4 Aug 2009 (20090804/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2009

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

The ALL, BIB, MAX, and STD display formats in the CA/Caplus family of databases have been updated to include new citing references information. This enhancement may impact record import into

database management software. For additional information, refer to NEWS 22.

=> s 120

L21 3 L20

=> d 121 1-3 ibib

L21 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2008:746167 CAPLUS

DOCUMENT NUMBER: 149:104371

TITLE: Synthesis and Self-Association Properties of Functionalized C3-Symmetric Hexakis(p-substituted-phenylethynyl)triindoles

AUTHOR(S): Garcia-Frutos, Eva M.; Gomez-Lor, Berta

CORPORATE SOURCE: Instituto de Ciencia de Materiales de Madrid, CSIC, Madrid, 28049, Spain

SOURCE: Journal of the American Chemical Society (2008), 130(28), 9173-9177

CODEN: JACSAT; ISSN: 0002-7863

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 149:104371

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:1293087 CAPLUS

DOCUMENT NUMBER: 146:217110

TITLE: Electroactive C3 symmetric discotic liquid-crystalline triindoles

AUTHOR(S): Gomez-Lor, Berta; Alonso, Beatriz; Omenat, Ana; Serrano, Jose Luis

CORPORATE SOURCE: Instituto de Ciencias de Materiales de Madrid, CSIC, Madrid, Cantoblanco, 28049, Spain

SOURCE: Chemical Communications (Cambridge, United Kingdom) (2006), (48), 5012-5014

CODEN: CHCOFS; ISSN: 1359-7345

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 146:217110

OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

L21 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:902899 CAPLUS

DOCUMENT NUMBER: 143:229827

TITLE: Preparation of substituted sym-triindole derivatives by cyclocondensation reaction of substituted oxindole derivatives using phosphorus oxychloride

INVENTOR(S): Hiyoshi, Hidetaka; Kumagai, Hironobu; Ooi, Hideo

PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 66 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2005077956	A1	20050825	WO 2005-JP2140	20050214
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RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
EP 1717239	A1	20061102	EP 2005-719087	20050214
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			
CN 1934114	A	20070321	CN 2005-80008807	20050214
IN 2006CN02981	A	20070608	IN 2006-CN2981	20060814
US 20070191455	A1	20070816	US 2006-589534	20060815
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PRIORITY APPLN. INFO.:			JP 2004-38874	A 20040216
			WO 2005-JP2140	W 20050214
OTHER SOURCE(S):	MARPAT 143:229827			
OS.CITING REF COUNT:	1	THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)		

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